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ABSTRACT

A workbook to guide planning at the University of Maine, Farmington (UMF) is presented that outlines the planning process and institutional goals, followed by university data. Attention is directed to trends in society, the region, state, and local service area and the likely effects on UMF in the next 3 to 10 years. Schemata are presented of the present planning process at UMF that include principal decision-making lines and recommending bodies, and the role of the planning committee in the decision-making process is described. Information is presented on UMF's mission and the status of: programs of study, public service activities, research programs, and special undertakings, including inservice programs in special education and conferences in rural community health education. In addition, goals are specified for education, public service, personnel, management, and student life. Trend data and narrative analysis are presented for: the economy, population/demography, work/employment government/politics, science/technology, environment, energy, education (overall), and values. Projected impacts of these trends on educational programs, students, resources, public service, research, and the college administration are also listed. Finally, an outline shows development of institutional, divisional, departmental, and programmatic goals for the next 3 to 5 years. (SW)

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ED225435

# WORKBOOK FOR PLANNING

# UNIVERSITY OF MAINE

# FARMINGTON

An Internal Working Document

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# THE PLANNING PROCESS

# AT UMF

INTRODUCTION

The purpose of this workbook is to help all of us at UMF--individuals, programs, departments and divisions--as we revise present goals and plan for the future.

By no means, should we view this workbook as a final document. Rather, we can expect the material to change as the planning process evolves. The committee is interested in obtaining your ideas, comments and responses as part of this process.

Section One describes the planning process as it has evolved and will continue to function at UMF. It shows the interrelationships among campus entities and tells who is responsible for what.

Section Two contains data about UMF at the present time--a sort of who-we-are and where-we-are analysis of our present status. Here, you will find present mission, present statement of purpose, and present operational goals.

Section Three presents information about trends observable in society-at-large, the region, the state, and our local service area.

Section Four includes statements about how these trends are likely to impact on UMF in the next three to ten years.

The final section is devoted to goal development and future planning. It suggests how to identify and establish goals at both departmental and divisional levels.

In addition to providing individual responses, many of you will be participating in activities related to this workbook, through your departments or divisions. We sincerely hope that it will serve you well, and we encourage you to communicate your reactions to any of us.

Ted Atkinson
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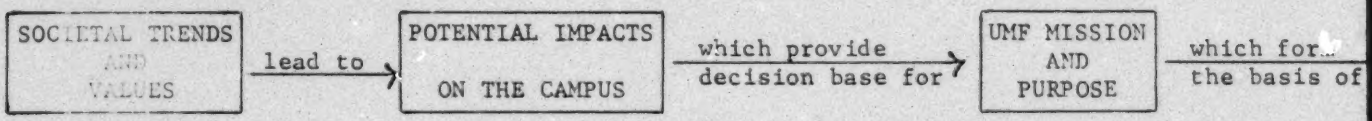
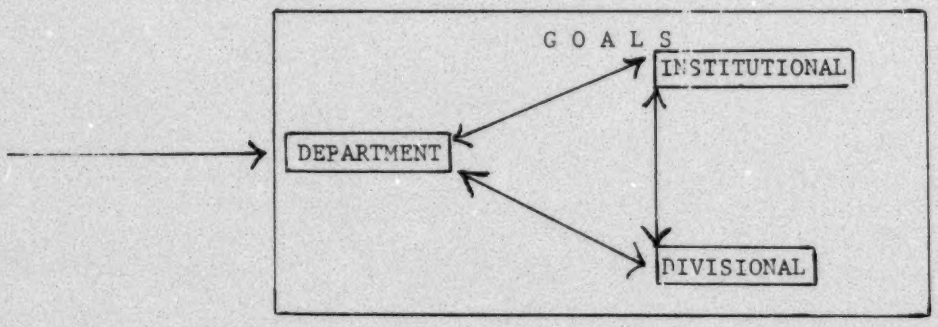
Einar Olsen
John Scarcelli
Sharon Sommer
Anita Waterhouse
Vance Wells

## WHAT IS PLANNING?

| Good Planning Is | Good Planning Is Not |
|---|---|
| * flexible | * rigid |
| * a process for anticipating the future | * merely a reaction to immediate needs and concerns |
| * a systematic way of thinking about goals and directions of the organization | * the use of someone else's plan or planning process, simply because it worked for them, without considering one's own situation and unique characteristics |
| * a means of establishing priorities for action | * a brainstorming session of all we want to do in a period of time |
| * a method for changing and updating, in order to meet new needs, use new resources, or take into account new constraints | * a process which becomes more important than everything else that a group or organization does |
| * a plan of action that tells WHAT will be done and WHEN, WHERE, HOW and BY WHOM | * a decision about what will be done without deciding how it will be done and who will do it |
| * an approach for involving those who will be affected by the plan to determine what that plan will be | * an activity completed by an administrator (or group of administrators) in the inner recesses of some central office |
| * a process which looks at the entire institution | * a process which focuses attention on only one aspect of the institution |
| * a means for stimulating change and improvement while, at the same time, increasing acceptance of the need for and desirability of change | |

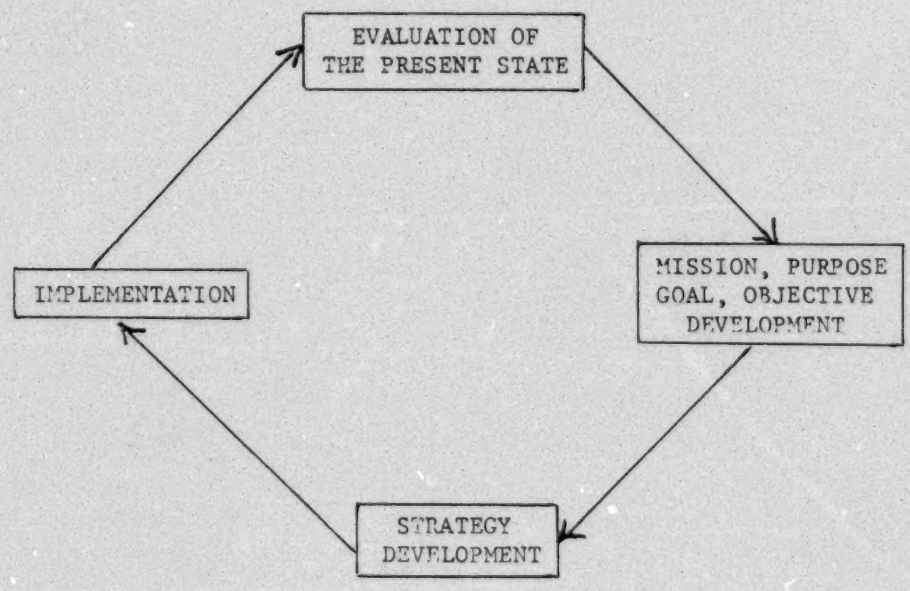
CONCEPTUALIZING PRESENT PLANNING PROCESS


SOCIETAL TRENDS AND VALUES
lead to
POTENTIAL IMPACTS ON THE CAMPUS
which provide decision base for
UMF MISSION AND PURPOSE
which for... the basis of

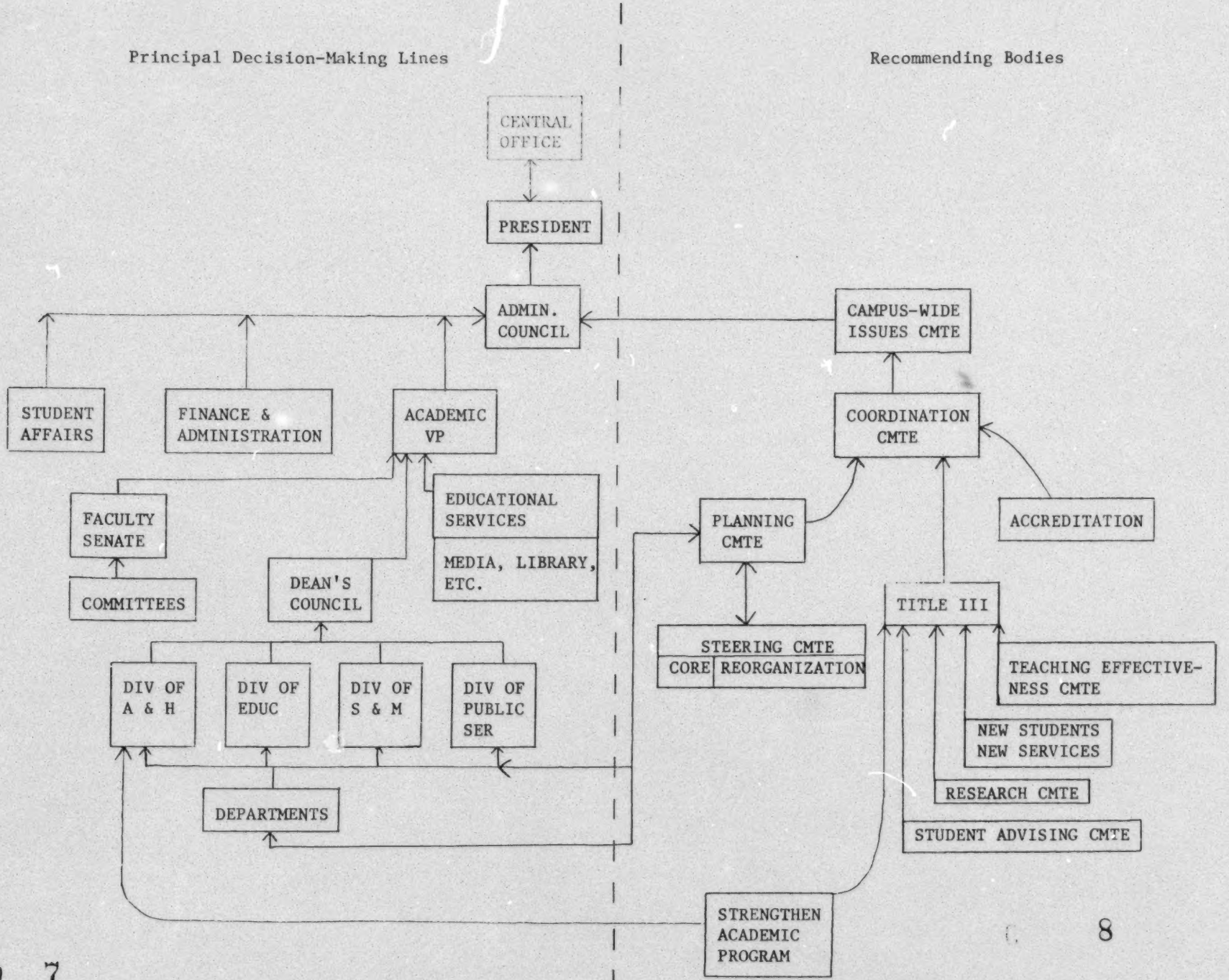



THE PLANNING CYCLE

Planning and the planning process are never ending. They are designed to continue indefinitely.




This schematic is appropriate at the broad institutional level, the divisional level, and the departmental level.


Principal Decision-Making Lines
Recommending Bodies
CENTRAL OFFICE
PRESIDENT
ADMIN. COUNCIL
CAMPUS-WIDE ISSUES CMTE
STUDENT AFFAIRS
FINANCE & ADMINISTRATION
ACADEMIC VP
COORDINATION CMTE
FACULTY SENATE
EDUCATIONAL SERVICES
MEDIA, LIBRARY, ETC.
PLANNING CMTE
ACCREDITATION
COMMITTEES
DEAN'S COUNCIL
TITLE III
STEERING CMTE
CORE
REORGANIZATION
TEACHING EFFECTIVE-NESS CMTE
DIV OF A & H
DIV OF EDUC
DIV OF S & M
DIV OF PUBLIC SER
NEW STUDENTS NEW SERVICES
RESEARCH CMTE
DEPARTMENTS
STUDENT ADVISING CMTE
STRENGTHEN ACADEMIC PROGRAM

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WHERE THE PLANNING COMMITTEE FITS IN THE DECISION-MAKING PROCESS

DECISION-MAKING GUIDELINES--as they relate to planning and Title III.

I. President's Administrative Council. Chaired by the President; Vice President level staff. A decision-making group. This group meets on a weekly basis.

II. Campus-wide Issues Committee. Chaired by Academic Vice President. Composed of Deans, Vice President for Student Affairs, Vice President for Finance and Administration, and any other as determined by the Academic Vice President. This is a body which makes recommendations to the President's Administrative Council. The purpose of this group is to address issues that are of more of an immediate nature, as opposed to long range. They will also tend to be issues of reasonably broad consequence. This design will insure that short and long range issues are discussed on consonance with each other.

III. Coordination Committee. Chaired by the Academic Vice President. Composed of Faculty Senate Chairperson, Title III Project Director, Planning Committee Coordinator, and Accreditation Coordinator. Purpose: to coordinate these activities in order to avoid duplication.

A. Accreditation: Role will be to see that accreditation material is properly collected each year. Much of the material will be derived from the Planning Committee.

B. Planning Committee: Makes general recommendations to the Short Range Issues Committee. This group then makes a recommendation to the President's Administrative Council. It is assumed that the Planning Committee is generally concerned about the broad focus of the institution.

It is also clear that, at times, the Planning Committee will be dealing with decisions that are generally made at a divisional or departmental level, or in committee. In these cases, the Planning Committee can recommend directly to the department or division or committee, with a copy of the recommendation to the appropriate dean and vice president. Here, it is assumed that divisional and departmental matters will follow the broad, institutional direction.

In the area of priority, establishment recommendations will generally be made to the President's Administrative Council, or to the level that decides or recommends the priority.

C. Title III Project. The activities of this project were recommended by the Planning Committee. Therefore, the Title III project team is carrying out the recommendations of the planning group. Consequently, the direction for the Title III project staff is obtained by the staff carrying out the planned activities and by making recommendations for other activities to the Planning Committee, which will pass its recommendations through the Coordination Committee to the Short Range Issues Committee--for a final recommendation to the President's Administrative Council.

NOTE: No level has veto power over a recommendation that's being passed through the decision-making channel described herein.

The Planning Committee makes every attempt possible to utilize the existing decision-making bodies and structures.

# U M F at P R E S E N T

## Mission, Purpose, Institutional Goals

These materials are designed to provide direction for the present state of the institution. Present, new directions should find their base within these statements.

## INSTITUTIONAL MISSION

It should be noted that, in the University of Maine system, the trustees make the final determination of institutional mission. The Planning Committee has updated that mission on the basis of trustee action. The Committee has added a Statement of Purpose.

The institutional mission and purpose are broad statements of fundamental purpose that embrace the social and intellectual aspirations of the institution. Some or all of the following may properly be included in mission and purpose statements: the legacy of the institution; the major segments of society served; academic and public service emphases; the character and quality of the faculty; new directions to be pursued; institutional uniqueness; the relationship to the social, economic or political environment.

The institutional mission and purpose are the principal references for the development of the institution's goals and program goals.

A Mission Statement should:

* clearly identify the institution's overall purposes: whom it will serve, how it will serve them, and the results of this service.

* clearly indicate the general direction the institution endeavors to move.

* clearly furnish a frame of reference for the relevancy of the institution's goals.

* clearly set forth the emphasis, scope, and character of the institution's academic programs.

* clearly distinguish the institution from all other institutions.

* clearly identify the basic philosophy and values of the institution:

  Teaching versus research versus service
  Liberal arts vs career orientation
  Traditional vs nontraditional education
  Role of supporting services
  Academic freedom and corollary obligations
  Responsibilities to constituencies

UNIVERSITY OF MAINE AT FARMINGTON--Mission Statement
approved by Board of Trustees, 10/18/74

| | Status | Suggested Changes and Rationale |
|---|---|---|
| The MISSION of the University of Maine at Farmington is to provide for the State of Maine undergraduate programs in education, the liberal arts, general studies, and allied health; to provide jointly with graduate centers, instruction for graduate students; to provide public service programs geared to the needs of the region; and, to fulfill state-wide responsibilities for certain aspects of teacher education and of public services in health education.<br>Within this framework, the following outline is to serve as an operational guideline for program development: | Since the mission statement at the left was approved, trustee action has changed some aspects of the mission. Other programs have not developed, for one reason or another. The column to the right lists changes suggested by UMF. | |
| Programs of Study | | |
| Associate Degrees | | |
| Allied Health Services | UMF has no programs as yet in this area | UMF suggests that the term "Allied Health Professions" may be more appropriate. |
| Educational Services | Programs include: Trainable Mentally Retarded; Early Childhood Education; Instructional Media Technology | UMF will be requesting authorization to eliminate the Associate of Science in Instructional Media Technology Program. |
| Geo-Physical Technology Areas | One program to date--Land Planning Technology | |
| Home Economics Areas | One program to date--Dietetic Technology | |
| (Not included in original Mission Statement--Liberal Studies) | New program under consideration at Chancellor's Office level | UMF's primary rationale for requesting that this program be included in its mission is that it is needed for UMF's increasing enrollment of part-time learners. |

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| Programs of Study (Continued) | Status | Suggested Changes and Rationale |
|---|---|---|
| Baccalaureate Degrees | | |
| General Studies | Degree program approved by Trustees on October 24, 1974. It is anticipated that enrollments will increase as graduates of the two-year Liberal Studies program seek entry into the four-year General Studies program | |
| Liberal Arts | Majors include: Biology, English, Geography, History, Mathematics, Interdisciplinary (an individualized option whereby students, in consultation with departmental advisors, combine work in two or more fields consistent with the students' particular interests), and the recently approved Psychology major. | Additional majors may be requested through regular channels in the future. It is also anticipated that enrollments will increase as graduates of the planned two-year program in Liberal Studies seek entry into four-year baccalaureate Liberal Arts programs. |
| Teacher Education (Elementary and Secondary) | Programs include Elementary and Secondary majors in Biology, English, Geography, History, Mathematics; and Area Teaching Specialties in Science Area, Language Arts Area, Physical Science/ Mathematics Area, and Social Science | |
| with particular emphasis on Early Childhood Education | This is an Elementary Education option which trains teachers for K-3 levels. | |
| Home Economics Education | Major in Home Economics Education for teacher certification, and with non-teacher certification options in: Consumer Merchandising Education, Family Services Education, and Nutrition Education | UMF suggests these Home Economics public service options be listed separately in its Mission Statement, apart from the broad "Teacher Education" category. |
| Special Education | Majors include: Mental Retardation, Emotional Disturbance, Learning Disabilities, Speech Correction, and--<br><br>Rehabilitation Worker Program, approved by Trustees on February 4, 1971. | UMF suggests the Rehabilitation Worker Program be listed separately from the Special Education Teacher Education category. Rehabilitation Worker graduates are not certified to teach; rather, they are trained to work with clients of human service agencies. |

| UMF MISSION, Approved by Trustees 10/19/74 | Status | Suggested Changes and Rationale |
|---|---|---|
| Programs of Study (Continued)<br>Baccalaureate Degrees | | |
| (Not included in original Mission Statement--Allied Health Professions) | Four-year degree program in Community Health Education, approved by Trustees (EP Committee) May 29, 1978 | UMF suggests that four-year Allied Health Professions Programs be included as part of its mission. Any new programs to be approved through official channels. |
| Master's level courses approved by a graduate center | Courses provided include USM courses in education, Home Economics subject areas, Home Economics Education. | |
| Master's programs in education, liberal arts, and vocational-industrial education (Home Economics option) jointly with graduate centers | Programs provided thus far--USM's Masters in Education (UMF has a campus-based liaison/coordinator to work with UMF candidates.) Master of Science in Education; Industrial Education-Home Economics (Home Economics Teacher Educator is UMF Coordinator/Advisor of Program, working cooperatively with USM Industrial Education Coordinator.<br><br>To date, UMF has no graduate Liberal Arts Programs | |
| Professional transfer programs in selected areas | Programs include pre-engineering to UMO; Life Science to UMO | |
| Continuing Education Program | Areas include credit courses in the Continuing Education Department; continuing education unit courses (10 class hours=1 CEU, commonly used for certification); non-credit courses. Many of above offered at outreach locations--Rumford, Skowhegan, etc. | |
| Cooperative Education Program | UMF's Career Planning and Placement Office is charged with assisting faculty in finding cooperative education sites. Coop-Ed. opportunities through field experience options are available in Liberal Arts, Home Economics Education and General Studies programs. All majors have an opportunity for practicum work. | |

| UMF MISSION, Approved by Trustees 10/18/74 | Status | Suggested Changes and Rationale |
|---|---|---|
| **Programs of Study** (Continued) | | |
| (Not included in original Mission Statement--Cooperative Degree Programs with other UM campuses) | UMF works with UMA in offering UMA's two-year Business major degree program. It is offered for UMA students working here as transient students, and for our students. Also, UMF and UMM have an agreement whereby UMM students, after taking certain basic courses, can transfer to UMF to complete the Community Health Education Program. | UMF suggests that Cooperative Degree Programs with other UM campuses be included in its Mission Statement, so it can explore more options in cooperation with other UM campuses. |
| **Public Service** | Programs in public service are numerous, including Western Maine Energy Center; Day Care Program; Resource Center, Small Business Development Center, etc. | |
| Health education facility and personnel as shared community resources | Through HERC, UMF offers its facilities and personnel for various public service activities, including its Hospital Education Project; the now transferred School Health Education Project; health conferences, seminars, etc. | |
| Programs designed to meet the needs of low income students, minority groups and veterans (e.g., VEEP, PBS) | The Program of Basic Studies has been refunded for an additional four years; VEEP was not refunded due to lack of eligible veteran enrollees; Upward Bound (a resident/training/educational experience for low-income high school students) has been added; College Explorations--an outreach program for adults interested in attempting some form of higher education has been added. | |
| **Research** | | |
| Experimental programs for early childhood and special education | Some examples in this area included: Transitional Kindergarten; Day Care Program; Special Education Clinic; "Cued Speech Project"; In-Service Training | |

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UMF MISSION, Approved by Trustees 10/18/74

| Research (Continued) | Status | Suggested Changes and Rationale |
|---|---|---|
| Innovation in teacher preparation to include organizational change by function, delivery of instruction, curriculum content and materials, and professional development experience alternatives | Included are: Teacher Corps Project; In-Service programs offered by UMF faculty in such areas as "Recognizing the Special Child." Also, UMF has an agreement with the local SAD #9, whereby a SAD #9 "master" teacher is "borrowed" for one year to provide student teacher supervision in SAD #9 schools; SAD #9 person becomes an "adjunct UMF professor" for that period. Special education and elementary education student teachers go out to area schools to tutor elementary students, as part of the field experience/ practicum situations. | |
| **Special Assignment** | | |
| Central Maine Consortium in Higher Education with Kennebec Valley Vocational Technical Institute, Central Maine Vocational Institute and University of Maine at Augusta. | Consortium no longer in existence. All efforts to develop this cooperative venture failed, due to lack of interest and sufficient funding. | UMF suggests this be deleted from its Mission Statement. |
| Cooperative program with Vocational Technical Institutes to train Vocational Teachers | This program never developed. | UMF may suggest this be deleted from its Mission Statement. |
| State-wide responsibility for providing courses, seminars, workshops or institutes in the area of Special Education | In-service programs offered by UMF faculty in such areas as "Recognizing the Special Child"; annual conferences offered by Special Education faculty and students in various Special Education areas, which attract teachers and others from Maine and New England; various short-term institutes and seminars are offered, together with regularly scheduled courses in Special Education, at UMF and in various communities throughout the State. Our Special Education faculty are very active in this type of public service. | |

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| UMF MISSION, Approved by Trustees 10/18/74 | Status | Suggested Changes and Rationale |
|---|---|---|
| Special Assignments (Continued) | | |
| State-wide responsibility for providing assistance in the use of instructional resources and techniques in health-related fields, through specialized courses, seminars, workshops, or short-term institutes | Various conferences in rural community health education have been offered. Our HERC and Health Education personnel act as consultants with regard to instructional resources and techniques. UMF assisted in the dissemination of the TV series, "Inside-Out" and UMF's health personnel offer numerous courses on and off-campus in health-related areas, including emergency training and techniques, etc. | |

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## STATEMENT OF PURPOSE

The University of Maine at Farmington, Maine's oldest public institution of higher learning, exists to provide the people of Maine and other geographic regions, where appropriate, with quality educational and cultural programs. Through its faculty, academic standards and programs, support staff and physical facilities, UMF advocates the educational enrichment of the greatest number of qualified students. The campus operates under a Mission adopted by the Board of Trustees of the University of Maine in 1974.

UMF is a small community of scholar-teachers and undergraduate students. Small classes are the norm, and faculty-student-professional staff contact is highly regarded. In its small campus environment, UMF carries out a commitment to academic freedom and academic excellence in its programs in teaching, human services and in the liberal arts. UMF provides opportunities for students to obtain necessary competencies and credentials for designated professions, as well as opportunities to develop skills for responsible leadership. UMF organizes courses, academic programs, cultural experiences, research and scholarly activities, and establishes standards to achieve this end.

UMF is also committed to serving non-matriculating students within its financial means who seek to upgrade their skills for matriculated status, or who seek such skills or cultural experiences for their own sake. Certain resources of UMF are also committed to providing service to schools, business and other organizations in its geographic region.

UMF is committed to the education of the whole person and supports a range of cultural, social, athletic and recreational programs designed to meet the needs of individual enrollees. This goal is largely achieved in informal campus settings.

UMF is committed to personnel policies and procedures that are fair and consistent; that result in a safe, pleasant, healthy and productive work environment; and that encourage self-improvement. UMF also actively supports affirmative action, equal opportunity, and access for the handicapped.

Institution-wide

Present Goal Statements

Institutional goals are logical extensions of the institution's mission and purpose. Whereas, the mission refers to the broad, overall, long-term purpose of the institution, a goal is more definitive and capable of achievement in a certain period of time.

Goals are comprehensive and address themselves to the major roles and functions of the institution (academic instruction, public service, continuing education, student services, research, resources, institutional management, etc.). They may constitute the expansion, maintenance, or strengthening of existing programs or the inauguration of new programs. Goals define the directions toward which the institution wishes to move. In contrast to the mission and purpose, goal statements indicate a need for concrete actions.

The Planning Committee has identified the following as present institutional goals.....in other words, these are the goals which we observe as providing present direction and purpose for the college.

EDUCATIONAL PROGRAM GOALS

1. To provide the highest quality educational programs and services.

2. To provide and strengthen the general education component of all programs.

3. To match the learning needs of students to particular modes, settings, and strategies of instruction which reflect the best use of the skills and talents of particular members of the faculty.

4. To promote an understanding of the scientific method.

5. To promote an appreciation for and understanding of the many forms of artistic expression created by mankind.

6. To provide alternative means for students to broaden their educational experience within their planned programs.

7. To provide opportunities for learning to extend beyond the classroom.

8. To provide access to graduate education and lifelong learning opportunities.

9. To promote utilization of library and media resources.

10. To promote a quality environment for learning by utilizing the more personal atmosphere which is possible on a relatively small campus.

PUBLIC SERVICE GOALS

1. To make campus facilities, research capabilities, and faculty talent available to Maine residents for the purpose of meeting individual and community needs.

2. To increase participation in University programs by the widest possible spectrum of the general public on an equitable basis.

3. To increase public support and understanding of the University's programs.

4. To develop cooperative relationships with area organizations to enhance the fulfillment of the institution's mission.

5. To provide to the general public, offerings and activities that have genuine intellectual and cultural content.

PERSONNEL GOALS

1. To recruit and retain quality faculty, professional staff, and classified employees.

2. To recruit and retain faculty who are interested in undergraduate teaching.

3. To promote and maintain high academic standards and excellence in teaching.

4. To use the energy and talent of University personnel to serve the public in appropriate ways.

5. To encourage interaction between students and University personnel outside the classroom or office.

6. To maintain and strengthen academic freedom.

7. To encourage and support the interaction of University personnel with their colleagues.

8. To provide and strengthen an advisement process which contributes significantly to the learning process.

9. To promote and support the professional development of all University employees.

MANAGEMENT GOALS

1. To continuously monitor and evaluate each program to identify strengths that need to be developed and weaknesses that need to be corrected.

2. To promote collaboration with the other University of Maine campuses and other colleges in the region.

STUDENT LIFE GOALS

1. To provide a college experience which will help students identify their own personal goals and develop means of achieving those goals.

2. To disseminate information about the University, its faculty and staff, and its programs, which is honest, clearly understandable, and helpful to the development of realistic student expectations.

3. To expand access to the educational activities of the University.

4. To expand the involvement of students, faculty, and alumni in the recruitment process.

# TRENDS

The societal trends form the broadest context for UMF's planning.

The planning committee chose to focus on the following areas: economy, population/demography, work/employment, government/politics, science/technology, environment, energy, education in general and values. In the spring of 1980 on-campus experts provided written statements relative to these areas. These statements were then sent to off-campus experts who provided a written response. What is contained in the following pages is an edited version of the original statements and responses and some ASCU materials.

I. POPULATION/DEMOGRAPHY/UMF ENROLLMENT

National

The population of the United States will increase from its present level of about 215 million to approximately 235 million by 1985, representing a growth rate of about 0.7% per year. Population shifts toward the south and west will continue through the next decade. This overall increase will occur, while the birth rate is falling. The number of 18 year olds will decrease by 14-15% between 1975-1985. The predominant group will be composed of those from 20 to 40 years of age by 1985. The group will number almost 80 million. Also, there will be great growth in the number of people over 65 years of age who will live longer.

Young people are growing more inclined to delay college entry for several years after graduation and more students are choosing to enroll on a part time basis. The proportion of traditional age freshmen migrating to other states rather than attending local institutions will be stable over the 1975-85 period. The percentage of 18-21 year old female population enrolled as degree credit undergraduates will remain constant at the 1975 line through 1985.

Whether adults, minorities, or women will exceed past trends and have a dramatic effect on enrollment in the 1980's seems unlikely according to the current evidence. These projections assume no drastic changes in the nation.

Regional

On an overall basis the northeast is likely to experience a decrease in the number of 18 year olds. Freshman levels will be affected slightly downward as a result of migration patterns. The pattern of projected public high school graduates will decline by 22% between 1979 and 1987. The participation rate of 18 year olds will rise slightly. This region will show the greatest decline of any region in high school graduates. Birth rate pattern is the lowest for any region in the nation.

State Population of "Drawing Area"

The population levels and trends in Maine and in the local drawing area largely define the UMF market population. The size and demographic characteristics of this pool may have a significant impact on UMF's ability in the coming years to derive sufficient income from tuition to avoid programmatic disruption, to adequately fund existing programs, and to undertake new ventures. While sound and timely population data is difficult to obtain in many areas, projections for most of the major population-related issues can reasonably be made for the near-term. (Projections beyond the next five years for most of these variables are suspect.)

1. The number of high school graduates will, in general, decline throughout the coming decade. The average decline over that period will exceed 10% and the EBB will, at times, approach 20% of the current figure.

PROJECTED NUMBER OF HIGH SCHOOL GRADUATES
1980-1990

| Year | # Graduates | % of 1980 |
|---|---|---|
| 1980 | 16,473 | 100 |
| 1981 | 16,712 | 101 |
| 1982 | 15,828 | 96 |
| 1983 | 15,626 | 95 |
| 1984 | 14,638 | 89 |
| 1985 | 14,645 | 89 |
| 1986 | 13,743 | 83 |
| 1987 | 14,262 | 87 |
| 1988 | 14,336 | 87 |
| 1989 | 14,436 | 88 |
| 1990 | 13,294 | 81 |

(These estimates were derived by projecting net migration trends for each elementary grade level, moving current grade-level populations forward in time subject to these adjustments, and calculating the size of the graduating class as a fixed fraction of the 8th grade class four years previous. The experience of the last ten years is that this fraction varies between .76 & .80. The higher figure was used in the projection calculations. A 5% decrease in the above projected numbers of H.S. graduates would result were .76 to be used for the H.S. retention figure. All data for this projection is derived from the 1979 edition of Maine Educational Facts.)

This decline in UMF's traditional prime market may have serious consequences for the institution.

2. Approximately the same percentage of high school graduates in the near future as in the recent past will seek post-secondary education immediately upon completion of high school. Some drift away from participation in traditional academic programs may occur, however, in response to economic pressures.

    A. The trend in the drawing power of vocational and technical programs in other institutions should be monitored.
    B. The Southern Maine job market is growing rapidly and if the trend continues it may siphon-off some UMF potential (academic) students for direct entry into that job market or for educational/training programs more directly related to the practical requirements of that market.

3. There will be an increase in the pool of 23-45 year olds.

    A. The developing bulge in the population curve in the 23-45 band is due to both natural increase

(War babies) and net migration. This artifact is likely to be the most important feature of our age profile curve for a long time to come.

B. While the shape of the age profile curve is currently well-defined at the national and state levels, we will have to wait for the results of the 1980 census to see if the same situation obtains in UMF's local market area.

4. The state population will continue to grow, in large part due to immigration of 23-45 year olds.

A. The data on which this conclusion is based is up to five years old and thus in need of timely information for confirmation. The 1980 census will provide some checks, but it was not designed to provide detailed migration data.

B. Examination of public school enrollment data shows net in-migration for ages 1-6, net out-migration for ages 7-8, and again net in-migration for ages 9-13. This probably reflects the traditional departure of young Maine families (and possibly many recent immigrants) superimposed on a broad, but probably lumpy, influx pattern of 23-45 year olds (and their children). This pattern in school enrollment counts has continued since the early 1970's with the only deviation being a temporary decrease in in-migration of families with young children around the time of the oil embargo.

C. If the current low fertility rate represents (in any significant sense) postponed births as opposed to foregone births, substantial natural increase may result in the near future. Because of the large number of women currently in the child-bearing years, even modest changes in the fertility rate could rapidly create a shortage of elementary teachers. If this does happen, it will most likely impact the small, fastest growing, communities most severely.

5. Several additional population-related matters may merit future examination and monitoring.

A. The 1980 census should be reviewed to illuminate the size and distribution of various special populations of potential interest to UMF in planning its academic and public service activities (elderly, poor, ill-housed, potential learners (grads, 18-22, 23-45), industry/occupation groups, . . .).

B. Efforts should be made to monitor the impact of the economic growth of Southern Maine. The situation

there in many ways resembles the early growth stages of Route 128, 495, and Southern New Hampshire. Continued economic growth in that region could substantially alter current migration trends, work patterns, and educational demands within Maine. UMF is not likely to gain much from this situation.

C. Data from UMF admissions records and from external sources should be monitored to gain a better insight into the ability of parents and emancipated students to bear increased tuition costs.

## UMF Enrollment

The dynamics of the enrollment characteristics of UMF will have an important impact on the future of the organization. Fluctuations in the number of students, fluctuations in the demand for various UMF programs, and fluctuations in the number of out-of-state students will require innovative managerial and fiscal adaptation on the part of the University.

1. Enrollment over the past few years has been relatively stable and is hovering around 1,570 for full-time students and around 380 for part-time students.

UMF Enrollment
1968-1980

| Year | Full-Time | Part-Time | Total |
|---|---|---|---|
| 1968 | 990 | 349 | 1,339 |
| 1969 | 1,110 | 278 | 1,389 |
| 1970 | 1,268 | 232 | 1,500 |
| 1971 | 1,325 | 295 | 1,620 |
| 1972 | 1,446 | 263 | 1,709 |
| 1973 | 1,542 | 405 | 1,947 |
| 1974 | 1,566 | 332 | 1,898 |
| 1975 | 1,675 | 442 | 2,117 |
| 1976 | 1,645 | 333 | 1,978 |
| 1977 | 1,568 | 368 | 1,936 |
| 1978 | 1,541 | 384 | 1,925 |
| 1979 | 1,563 | 396 | 1,959 |
| 1980 | 1,583 | 384 | 1,967 |

2. These students come primarily from other states and from nearby counties.

A. The percentage of out-of-state students at UMF rose 150% between 1970 and 1976, subsequently dipped, and in 1980 returned to the 1976 level of 12% of the student body.

OUT-OF-STATE STUDENT HEADCOUNT
1970-1980

| Year | Total Students | Out-of-State Students | Out-of-State Students, % |
|---|---|---|---|
| 1970 | 1,500 | 93 | 6.2 |
| 1971 | 1,620 | 95 | 5.9 |
| 1972 | 1,709 | 133 | 7.8 |
| 1973 | 1,947 | 167 | 8.6 |
| 1974 | 1,898 | 194 | 10.2 |
| 1975 | 2,117 | 224 | 10.6 |
| 1976 | 1,978 | 243 | 12.6 |
| 1977 | 1,936 | 208 | 10.7 |
| 1978 | 1,925 | 222 | 11.3 |
| 1979 | 1,959 | 226 | 11.5 |
| 1980 | 1,967 | 243 | 12.4 |

(Data from C.O. Annual Report on Enrollment, October 1980)

It is not expected that the percentage of out-of-state students will exceed 20%. For purposes of planning it is reasonable to assume a continuation of the current rate, although significant deviations might occur. A collapse of the NEBHE agreement would likely decrease the number of out-of-state students by 50%.

B. An analysis of enrollment of students from the various Maine counties shows that UMF draws most heavily from Franklin County, followed by the proximal counties, Piscataquis, and the central mid-coast counties. These areas are those which have a reasonable road access to Farmington and which are not close to the larger UM campuses. Outside of Franklin County the "drawing power" of UMF is roughly cut in half in the counties mentioned above and is halved again in the rest of the state. The following two tables provide a profile of the areas from which UMF has been drawing its students in recent years and outline the University's ability to attract students from these geographic areas.

HOME COUNTIES OF IN-STATE FRESHMEN
1974-1980

| County | 1974 | 1975 | 1976 | 1977 | 1978 | 1979 | 1980 | AVE. |
|---|---|---|---|---|---|---|---|---|
| Androscoggin | 41 | 44 | 50 | 34 | 33 | 36 | 33 | 39 |
| Aroostook | 15 | 23 | 19 | 20 | 28 | 15 | 11 | 19 |
| Cumberland | 56 | 71 | 55 | 41 | 60 | 51 | 48 | 55 |
| Franklin | 41 | 37 | 51 | 39 | 35 | 35 | 33 | 39 |
| Hancock | 8 | 6 | 6 | 10 | 6 | 4 | 7 | 7 |
| Kennebec | 49 | 36 | 44 | 55 | 48 | 48 | 45 | 46 |
| Knox | 10 | 15 | 9 | 14 | 16 | 14 | 13 | 13 |
| Lincoln | 8 | 10 | 7 | 7 | 14 | 13 | 7 | 9 |
| Oxford | 19 | 30 | 30 | 31 | 26 | 23 | 32 | 27 |
| Penobscot | 32 | 28 | 24 | 38 | 38 | 27 | 31 | 31 |
| Piscataquis | 10 | 7 | 3 | 4 | 4 | 10 | 5 | 6 |
| Sagadahoc | 6 | 11 | 6 | 17 | 12 | 11 | 12 | 11 |
| Somerset | 26 | 22 | 15 | 27 | 23 | 22 | 31 | 24 |
| Waldo | 6 | 11 | 6 | 11 | 10 | 19 | 8 | 10 |
| Washington | 3 | 4 | 3 | 7 | 8 | 4 | 10 | 6 |
| York | 25 | 44 | 18 | 37 | 31 | 31 | 35 | 32 |
| | 355 | 399 | 346 | 392 | 392 | 363 | 361 | 373 |

DRAWING POWER OF UMF BY COUNTY

| County | Average # UMF Freshmen (1974-80) | # H.S. Grads (1977) | # H.S. Going to College (1977) | College Participation Rate % (1977) | H.S. Grads Going to UMF % (1977) | College Bound H.S. Grads Going to UMF % (1977) |
|---|---|---|---|---|---|---|
| Androscoggin | 39 | 1,160 | 436 | 37.6 | 3.3 | 8.9 |
| Aroostook | 19 | 1,666 | 777 | 46.6 | 1.1 | 2.4 |
| Cumberland | 55 | 2,764 | 1,370 | 49.6 | 2.0 | 4.0 |
| Franklin | 39 | 424 | 176 | 41.5 | 9.1 | 22.0 |
| Hancock | 7 | 534 | 192 | 35.9 | 1.3 | 3.5 |
| Kennebec | 46 | 1,461 | 638 | 43.7 | 3.2 | 7.3 |
| Knox | 13 | 379 | 146 | 38.5 | 3.4 | 8.9 |
| Lincoln | 9 | 295 | 103 | 34.9 | 3.2 | 9.2 |
| Oxford | 27 | 812 | 324 | 39.9 | 3.4 | 8.4 |
| Penobscot | 31 | 2,138 | 856 | 40.0 | 1.5 | 3.6 |
| Piscataquis | 6 | 176 | 69 | 39.2 | 3.5 | 8.9 |
| Sagadahoc | 11 | 430 | 195 | 45.3 | 2.5 | 5.5 |
| Somerset | 24 | 654 | 240 | 36.7 | 3.6 | 9.9 |
| Waldo | 10 | 313 | 128 | 40.9 | 3.2 | 7.9 |
| Washington | 6 | 397 | 173 | 43.6 | 1.4 | 3.2 |
| York | 32 | 1,602 | 664 | 41.4 | 2.0 | 4.8 |

1978

| | Mat. | Not Mat. | |
|---|---|---|---|
| Full-time | 1488 | 56 | 1544 |
| Part-time | 119 | 268 | 387 |
| | 1607 | 304 | 1911 |

1979

| | Mat. | Not Mat. | |
|---|---|---|---|
| Full-time | 1515 | 48 | 1563 |
| Part-time | 89 | 308 | 397 |
| | 1604 | 356 | 1960 |

1980

| | Mat. | Not Mat. | |
|---|---|---|---|
| Full-time | 1524 | 59 | 1583 |
| Part-time | 102 | 282 | 384 |
| | 1626 | 341 | 1967 |

9. The non-matriculated full-time and part-time student populations, while showing some year-to-year fluctuations over the last five years, have remained level. (Note above tables.)

10. The male/female ratio at UMF has declined more or less steadily since the early '70s when males constituted more than a third of the population to the point today where they account for only about a quarter of the student population.

UMF STUDENT SEX RATIO
1972-1980

| Year | # Male | % Male | # Female | % Female |
|---|---|---|---|---|
| 1972 | 599 | 35 | 1,110 | 65 |
| 1973 | 636 | 33 | 1,311 | 67 |
| 1974 | 600 | 32 | 1,298 | 68 |
| 1975 | 713 | 34 | 1,404 | 66 |
| 1976 | 616 | 31 | 1,362 | 69 |
| 1977 | 569 | 29 | 1,367 | 71 |
| 1978 | 562 | 29 | 1,363 | 71 |
| 1979 | 547 | 28 | 1,412 | 72 |
| 1980 | 521 | 26 | 1,446 | 74 |

3. There appears to be little change in the age profile of UMF students over the last five years. A slight increase is noted in the 30-59 bracket. Since age information is not collected from some students (such as CED), any changes in the age profile of part-time learners are not known.

UMF STUDENT AGE PROFILE

1976 - 1980

| Age | 1976 N | 1976 % | 1977 N | 1977 % | 1978 N | 1978 % | 1979 N | 1979 % | 1980 N | 1980 % |
|---|---|---|---|---|---|---|---|---|---|---|
| <18 | 3 | 0.2 | 7 | 0.4 | 4 | 0.2 | 3 | 0.2 | 5 | 0.3 |
| 18 | 178 | 10.7 | 191 | 11.7 | 216 | 13.3 | 192 | 11.8 | 225 | 13.7 |
| 19 | 341 | 20.5 | 327 | 20.0 | 329 | 20.3 | 357 | 22.0 | 323 | 19.7 |
| 20 | 358 | 21.6 | 279 | 17.1 | 269 | 16.7 | 288 | 17.7 | 315 | 19.2 |
| 21 | 284 | 17.1 | 323 | 19.9 | 270 | 16.7 | 235 | 14.5 | 257 | 15.7 |
| 22 | 167 | 10.0 | 162 | 10.0 | 190 | 11.7 | 170 | 10.5 | 148 | 9.0 |
| 23 | 64 | 3.9 | 62 | 3.8 | 75 | 4.6 | 83 | 5.1 | 80 | 4.9 |
| 24 | 43 | 2.6 | 45 | 2.8 | 34 | 2.1 | 53 | 3.3 | 40 | 2.4 |
| 25-9 | 149 | 8.9 | 138 | 8.4 | 128 | 7.9 | 120 | 7.4 | 118 | 7.2 |
| 30-4 | 38 | 2.3 | 51 | 3.1 | 48 | 3.0 | 55 | 3.4 | 53 | 3.2 |
| 35-9 | 15 | 0.9 | 21 | 1.2 | 27 | 1.7 | 34 | 2.1 | 30 | 1.8 |
| 40-9 | 16 | 1.0 | 16 | 1.0 | 22 | 1.4 | 27 | 1.7 | 35 | 2.1 |
| 50-9 | 4 | 0.2 | 5 | 0.3 | 6 | 0.4 | 8 | 0.5 | 8 | 0.5 |
| 60-4 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 2 | 0.1 |
| 65+ | 1 | 0.1 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| | 1661 | ~100 | 1627 | ~100 | 1618 | ~100 | 1625 | ~100 | 1639 | ~100 |

4. The attrition rate at UMF has reached a "noisy" steady state in recent years with the following averages and ranges:

ATTRITION RATES

| | Fall Average | Fall Range | Spring Average | Spring Range |
|---|---|---|---|---|
| In-State | 7.2% | 4.0- 9.7% | 15.7% | 9.0-25.0% |
| Out-of-State | 10.3% | 6.3-15.2% | 15.1% | 7.3-26.0% |

Therefore, for planning purposes, the committee recommends that the average attrition rates (with due allowance for the range spread) of recent years be utilized in projecting enrollment.

5. The level of enrollment of regular, full-time students at UMF is presently determined by the enrollment in each of its academic program areas. In short, admissions recruits for individual programs, not a single University-wide program. Consequently, it is important to look at the drawing power of each program.

A. The Special Education and Early Childhood Programs are examples of areas in which UMF has more qualified applicants than can be accommodated. These limits restrict the potential for freshmen admissions growth. We also appear at first glance to have more applicants than we have in reality.

B. An analysis of freshman applicants reveals that the number of applicants have generally declined or remained stable in most program areas. Areas in which applications have increased have generally been those in which there are program limits. Consequently, the increase is beneficial only in terms of quality control in some areas.

6. The quality of the UMF applicant has remained relatively stable over the past few years. In relation to the pool of applicants, UMF has continued to attract the average student.

7. The situation vis-a-vis transfers parallels that of freshmen for most important criteria. The number of transfer students has fluctuated somewhat over the last five years, but the trend line for both external and internal categories is approximately flat.

NUMBER OF TRANSFERS
1976-1980

| | 1976 | 1977 | 1978 | 1979 | 1980 |
|---|---|---|---|---|---|
| External | 57 | 48 | 67 | 61 | 59 |
| Internal | 59 | 44 | 66 | 51 | 61 |

8. Over the past five years the number of part-time matriculated students has shown a modest increase.

MATRICULATION & FULL-TIME
STATUS OF UMF STUDENTS
1976-1980

1976

| | Mat. | Not Mat. | |
|---|---|---|---|
| Full-time | 1586 | 59 | 1645 |
| Part-time | 75 | 281 | 356 |
| | 1661 | 340 | 2001 |

1977

| | Mat. | Not. Mat. | |
|---|---|---|---|
| Full-time | 1541 | 27 | 1568 |
| Part-time | 78 | 289 | 369 |
| | 1619 | 318 | 1927 |

(Data for UMF Student Sex Ratio from Co-Enrollment Report, Oct. 1980)

11. In projecting enrollment at UMF it should be noted that the attrition rate can remain constant, as can the number of new entering students, and yet the total enrollment can subsequently decline as temporary "peaks" (which contribute to the total enrollment) pass out of the system at the end of four years. There is need to consider for planning purposes both the total and the components which constitute it. Similar issues to be considered are (1) the delayed response to recruiting activities (one must largely anticipate ups and downs to successfully engineer a steady-state or controlled growth), (2) programmatic quotas which reduce the actual pool of applicants to a figure less than the apparent one, and (3) financial break-points for applicants and current students which could be exceeded by fee adjustments instituted to correct for revenue shortfalls. Mathematically this system of relationships has the potential for unstable behavior.

12. The mix of the enrollment (I/S & O/S) is what essentially determines UMF's level of revenue. Should UMF lose O/S students in any significant numbers while retaining approximately the same total enrollment, we could face serious financial difficulties.

### Conclusion

The resulting impact of the previously noted population and enrollment trends is that UMF enrollment is likely to decline during the next decade if the University chooses to retain its current administrative policies, program offerings, and marketing stance.

UMF can avoid this situation by attracting more individuals from this 23-45 year old population bulge and by serving currently untapped market segments in addition to its traditional activities. Careful planning and selective adaptation will be required to successfully deal with changing times.

## II. POLITICS/GOVERNMENT

### National

In any political era, a fundamental question is who gets what, and how, and who pays for it. In the near and intermediate term, economic questions will be unusually intense and will be the major preoccupation of the national government. Developments in other domestic policy areas will be dependent on how the economic questions are answered.

The existence of extraordinarily unsatisfactory economic conditions over the past several years has severely challenged conventional economic wisdom.

The economic convulsions have yielded strange consequences: alarming inflation (now) and simultaneous high inflation and recession (early seventies); new political movements (the Reagan phenomenon and Proposition 13-type proposals); and a sharp contest among competing economic theories and their allies (Keynesian-classical-supply economics).

National problems will require national planning, with increasing controls and assertions of authority from Washington. National government will set the goals and administer their implementation. Such a centralized approach to public problems will demand an awareness of whole systems, and an understanding of the interactions among the social, economic, political, and ecological systems, calling for interdisciplinarity in policy making and administration.

There is the possibility of a military draft during the next decade if economic conditions deteriorate severely. Put succinctly, the increasing cost of strategic weapons will make a volunteer army uneconomical. The draft will then become economically necessary and politically acceptable. Both sexes will be subjected to the draft and that for compelling social reasons, college students will be exempted. The draft is foreseen only if a recession occurs of much greater severity than political leaders now anticipate publicly.

## State

While there is always the possibility of the election of anti-university political figures, major state developments should largely emanate from decisions of the federal government on the matters elaborated above. There is a homely expression used in international politics: "When China spits, Asia swims." This expression characterizes the relationship between the national and state governments. Assuming a degree of good will, university treatment by the state depends significantly on general economic conditions and on the availability of federal funds to the state. General economic conditions and federal aid per se are matters over which the state government has little control.

## Resolution of the Economic Questions

Among competing economic theories prevalent in the political process, only one claims both dramatic and relatively immediate improvement. This involves a substantial reduction in taxes and government spending which, it is alleged, would reduce inflation and stimulate production in the private sector to the degree that government income would actually increase. Whether this approach has enough political support to become adopted and, if adopted, whether it would work as intended, is problematical. Even assuming the best of both contingencies, dramatic improvements in the short-run appear remote; the problems are too complicated and long-standing to unravel quickly.

Other contending economic alternatives do not even claim dramatic improvement in the near term. They all involve incremental changes in various aspects of fiscal and monetary policy to reduce inflation, partly at least by promoting recession. With prospects dim for economic rejuvenation in the near future, the best guess is that available federal and state funds will shrink (in terms of real value).

## III. WORK/EMPLOYMENT

The world will change greatly. As the United States moves into the early stages of a post-industrial society, work will be intellectual, or at least highly skilled. A technology-intensive services society will require capabilities that can come only from higher and higher education for more and more people. The mid-1980's will see this country well into its post-industrial phase. Work will be increasingly white-collar. Individuals who cannot participate in processing information will be unemployed still. Education will become an industry, and people will be paid in proportion to how much they improve their capabilities and competencies as citizens. The work ethic will not disappear but employers will want greater participation where there may not be enough traditional work for everyone who can and wants to work. Organizations will have to be restructured to provide more freedom and autonomy among workers and to allow great participation in management decisions. Licensed professionals will be required to demonstrate continued professional competence in order to maintain a license to practice, thus placing upon institutions of higher education a growing responsibility to provide continuing education programs in a vast array of specialized subjects. Accompanying these changes in the workplace is the expectation of more leisure to enjoy the better things of life. As technological development increases, a larger variety of specializations are spawned, and to gain access to these specialized skills there will have to be a large variety of training and educational programs.

There is a trend toward exclusivity and specialization which may cause this country real trouble in the 1980's unless we find a way of doing a better job to broaden the educational base for both the technical and non-technical communities.

The labor market will pass further from agricultural to non-agricultural employment. The second most rapid growth for the country is in services. This is caused by our rapidly growing need for repairs, advertising and many other services for the highest standard of living that a growing population can call for. In Government we may expect at best moderate increases in this area. Most of the growth is expected in state and local governments resulting from the increased need for public health, education, sanitation, welfare, and similar services.

Between 1976 and 1985, total employment in government is expected to rise. This growth rate is less than that expected for services as a whole. Slow growth is expected in state and local government education employment where almost all teachers work. Service industries are expected to continue their rapid growth--employment is projected to increase, in business, health, legal, amusement and recreation.

Employment requirements in health care are expected to grow rapidly due to population growth. Business services, including accounting, data processing, and maintenance, also are expected to grow rapidly.

Construction is also expected to increase in the next ten years. This growth reflects a rapid rise in the number of households, school, hospitals, roads, and urban renewal projects necessitated by the great aspirations of our industrial economy.

A fairly rapid rise in finance and real estate is expected, despite the effect of automation on clerical appointment in both banking and insurance. Maine should not look to significant employment gains in insurance.

The rise of employment in trade will result from a rapidly growing population, a higher standard of living, and a greater number of people employed part time, especially in supermarkets, grocery stores, etc. Manufacturing is expected to grow somewhat. In transportation and public utilities, there will be divergent trends.

American Business (large) has traditionally relied heavily upon the liberally educated person for its leadership. Small business looks for undergraduate business majors. Education trend will continue to be specialization.

The number of labor force entrants having a college degree is expected to continue to exceed openings in the types of jobs traditionally sought by graduates. About three graduates out of four are expected to continue to find the kinds of jobs sought by graduates but about one graduate in four will have to enter nontraditional occupations or face unemployment.

Many may continue to experience periods of unemployment, or move from job to job in an attempt to find employment that fits their abilities and expectations. A substantial number may continue to compete with nongraduates for the more desirable jobs not previously filled by graduates.

College enrollees already are making some adjustments in their selection of major field of study. For example, the proportions preparing to enter overcrowded fields have declined. In teaching, it has declined from twenty percent in 1970 to eleven percent in 1976, and lower proportions are studying liberal arts as well. Higher proportions are obtaining degrees in career related majors such as engineering, accounting and public affairs and service.

## IV. EDUCATIONAL FUTURES IN MAINE

The population of Maine schools should not undergo any drastic changes over the next ten years. School enrollments will continue to decline at a slow rate for approximately the next five years. Then they will stabilize presuming that no major population shifts occur which would increase Maine's population dramatically. None seem to be predicted. The current population trend in Maine is for continued slow growth, but not necessarily the type which would impact heavily on the schools. Barring unforeseen and unpredicted major increases in the child population, we can expect that the numbers of children in Maine classrooms will not increase or decrease significantly in the ten years ahead.

Maine school staffing patterns do not indicate that we should expect any major shifts in the teaching force. We currently have roughly 12,329 classroom

teachers. Given our current enrollment patterns and predictions, it would seem that some slight decline might be expected. However, interestingly enough, the number of teachers continued to increase in the past few years despite overall declines in enrollment. It would be expected that those increases are at an end and that we will begin to see slight decreases in the number of teachers as local school agencies begin reductions in their teaching staffs. These reductions are more a function of budgetary restrictions than they are an analysis of teaching load.

In addition, there is nothing so unusual about the characteristics of Maine school staff that we should expect major changes. Currently, approximately 10,000 Maine teachers are 49 years of age or younger. The 30-39 age bracket has the greatest number, approximately 4,600, and an additional 4,000+ are in the 20-29 age bracket. Clearly the present teaching force in its majority is not facing retirement for age reasons.

The implication here is that we cannot find substantiation for predictions of great change in the teaching force. It is estimated that we currently have a turnover rate of 500-600 teaching positions a year. These changes are due to dissatisfaction (burn-out) and career changes. It does not seem likely that we will see major changes here without some new factors impinging on Maine.

It does appear that there are three major issues which will impact on Maine schools. These issues are very likely to bring about major changes in the next ten years. However, the impact of these issues still seems to be problematical and really needs serious scrutiny on the part of people in education especially, and by Maine citizens in general. The issues are Energy, Industrial Change, and Technology Development.

## Energy

It seems reasonably clear that something must begin to happen regarding the public schools and energy. The public schools are now facing serious problems in their efforts to deal with the inflationary impact of the school's energy demands. It is generally predicted that fuel oil will continue to increase in cost and that it will demand larger and larger amounts of the total school budget.

More significant, however, is Maine's development of school administrative districts and their resulting huge transportation systems. If the cost of fuel for transportation continues to rise at its present rate, it would not appear that the schools can continue their present transportation system. Suggestions have been made for shifts to a four day week, to the wider dispersion of the school population so that students need less transportation, and to changing patterns of the school year to deal with the effects of cold weather on fuel use. There is considerable room for imaginative approaches to the solution of this vexing problem. There is little room, on the other hand, for further budget expansion to fund continuing increases in transportation costs.

In conclusion, it would seem highly likely that technological fixes will be developed for the matter of fuel oil costs. The transportation problem does not seem to be as amendable to a relatively easy fix. Solutions will have to be found and those solutions will have a major impact on school staff and how they are used.

## Industrial Change

Industrial change does not seem to be likely on a large scale. However, should we develop new industries in Maine on the scale of the present Pratt and Whitney development or the Digital Equipment expansion in Augusta, both involving approximately 1,000 workers, it is possible that some new in teaching might elect to enter these new high paying (in Maine) industries. Teaching is still, for some, a second choice occupation. Better employment prospects, on a large scale, might well raise the need for new teachers.

Even without industrial changes of great magnitude, an increase in turnovers in teaching is reasonable to predict. Teachers began our current inflationary period at a much lower base than many others. Pay increases for teachers have lagged behind in many instances. These financial factors, coupled with the increasing tension associated with teaching, serve to drive a higher proportion of teachers out of the profession. The number leaving the profession will increase should employment possibilities in alternative fields develop in Maine. That potential will depend on the overall economic condition of Maine in the period directly ahead.

## Technological Development

It may be that our transportation problems are resolved through technological developments, particularly in the communication field. However, it is not likely that we will see great changes in education unless those changes are forced by people and/or pressures from outside of education; education is highly unlikely to reform itself. It is possible that the continued demands of energy costs may well force alternative delivery systems in education which would obviate some of our current system.

One such possibility is interactive cable TV with multiple channels and perhaps some different instructional formats than we currently have available. Such a system might eliminate some of the need for our present system of attendance for both the public schools and the colleges. At least, there would appear to be the potential for major modifications. There are other potential technological developments which might also make it necessary for us to deal with radical change. The impact would be on both pre-service and in-service education efforts in teacher education at this institution.

In summary, the next five years will continue to see the construction of school programs, the reduction of the teaching force, the elimination of some programs and activities, the severe reduction of others, all brought about by the delimiting budgetary constraints created by increasing energy costs. We can also expect a continued growth in alternative educational programs such as the Christian schools spurred by the continued and growing disenchantment with the public schools. We will need to address how and where we raise money to support ourselves.

The period 1985-1990 will see some significant changes. We will, by that time, have geared up to deal with our current energy problem. The major problem is transportation since we will probably not abandon the internal combustion engine. We now have some heating resolution possibilities in sight, particularly with solar heat. I believe that problem will be brought under control in the period 1980-1985. Transportation is more difficult and we will not resolve that until 1985-1990.

Enrollments will continue to fall slowly during the 1980's since the present population trend does not seem to be changing. Our population is getting older and there are fewer young people to educate. The 90's may see a reversal, but none seems in sight for the 80's.

Whether or not there will be a revolution in educational practices in the 80's is debatable. However, the key area for educators to address lies in research, planning, development, and implementation of improved teacher education programs. There will be changes with the potentially largest change and the major impact from communication system changes. That would seem to be an area that this college should view as an area of investigation and development.

We also need to shift our focus more to in-service. In-service will become a regular part of all school programs. More and more teachers will be seeking additional outside assistance in order to meet the growing challenges of public education. We need to develop our capacity to expand in this area.

## V. SCIENCE AND TECHNOLOGY

We are passing through a transition period to a new scientific and technological era in which engineers, scientists and technologists are providing the passports. The process involves scientific and technological development consonant with human needs and values as indicated by social science and the humanities. We now realize that we need to know the consequences of actions--particularly in resource use--before they are taken.

There are many scientific and technological developments which will have an impact on the 1980's and reshape society. One of these is an increase in electronics communication technology to replace part of our transportation needs and deliver information. This product of the new economy--information--involves over 50% of our Gross National Product and about the same percentage of the employment in this nation. It is estimated that by the end of the 1980's more than 60 percent of the GNP will involve information. Add to the traditional communications technologies upsurges in the use of computer systems xerography, holography, and the interactive modes of these, a host of remote sensing techniques and other technologies.

In the substitution of communications for some transportation, people may become more isolated and subject to manipulation by those controlling the communications content. The use of interactive or participatory input techniques and devices, such as instant polls and randomly selected comments for instructional feedback, could be a partial solution to this danger and decrease the trend toward becoming a nation of spectators rather than participants.

The trend toward an information economy established upon the knowledge industry will have an impact upon all aspects of the future, from work to energy consumption and environmental equality. An advanced industrial society requires its people to acquire the knowledge to cope with elaborate structures and

complex systems of thought in order to generate the new knowledge needed to deal with the problems of an emerging post-industrial period. Indeed, it will be necessary to gain new knowledge to use available technological developments. Job openings will continue to be created at various scientific and technological levels. The general populace will require the services of these people to deliver the information and perform the services made available.

Perhaps the most significant technological innovation of the 20th century has been "miniaturization", the foundation of the electronic revolution and its impact will continue to have effects on all aspects of society. Computers will become smaller in size, more sophisticated, less expensive and as necessary as the telephone. The increase in computing and communications capability will result in dramatic effects. There is now general agreement that curriculum delivery is possible by the electronics based technologies. Another major element of science will be microprocessor technology which will expand the opportunities for use of robot type technology. Laser technology will continue to expand. The complexity of computers, calculators etc., and even the modern automobile has increased the need for technologists and technicians. Modern health care involves family planners, health education specialists, medical assistants, physicians assistants, specialists, counselors and many more. This further separates the people from high level technology and scientific development in general, but frees them to pursue the information necessary to develop their speciality and hopefully improve the quality of their lives.

There is a danger of more polarization between the general populace and people at the "state of the art" level of science and technology. Information about the goals, possible benefits and even understandable outlines of research and development programs must continually be made available to the public to gain approval. The educational establishment plays an integral part in the delivery of such information which is absolutely necessary to retain the mandate of the people for continued progress and development.

In science, advances in genetic engineering and the potentialities of recombinant DNA hold many possibilities for improving the quality of life through solutions to many medical and biological problems. Economics dictates the development of cost-effective programs designed to lessen health care burdens. Awareness of genetic disease allowing early treatment or prevention is an example. Information on holistic health will be in continued demand. The effects of diet, stress, exercise, psychosocial needs and the environment on the individual will become more clear and more widely recognized, much as conservation and environmental issues have in the past decade.

Environmental consciousness is inseparable from natural resource management and energy problems but the latter has temporarily slowed the application of wise environmental technology and decisions. The time is right, however, for more programs training monitoring technologists and technicians for state and industry to focus on air, water and land quality improvement and maintenance.

Because of geometric increase of knowledge and information, life-long learning will become a requirement for all workers to maintain high degrees of specialization. The development of intermediate technologies will be reemphasized as a way to help improve the lives of non-industrial and third-world peoples. It is hoped that technology with a "human face" and codes of ethics and morals will evolve to satisfy human needs in the post-industrial society.

Science and technology will impact less on Maine which has its social, cultural and economic base in natural resources rather than in information, communications and services. We can expect the national consequences to occur in Maine but at a much slower rate over the next ten years. The economy will impact Maine in much the same way. However, in two areas Maine will be among the trend setting areas: (1) Maine will be a leader in using science and technology for the planning, utilization restoration, and conservation of natural renewable resources; and (2) Maine will be a leader in the area of developing intermediate technologies for energy production and conservation, small farming, forestry and mariculture; (3) Maine has only scratched the surface of its potential mineral and fossil fuel wealth. The possibility of commercially viable natural gas in northwestern Aroostook County is good. Major depostis of copper, lead and zinc are possible in several areas of the state. New exploration techniques are currently being developed to probe deeper within the earth.

With the expansion of scientific and technological knowledge and capabilities, more levels of technical skill and applications and middle-level management positions are created. The high technology is not labor intensive. Although a larger variety of specializations are created effeciencies and excell labor force will yield more leisure time. A large variety of training and educational programs will be needed for gaining specialization skills, for job changes, self-improvement and personal needs. Continual educational advancement will be beneficial, if not necessary, at almost all levels to keep abreast with rapidly advancing science and technology.

## VI. UM CENTRAL OFFICE

The Planning Committee will be seeking planning information from the Central Office, relating to the topics: (1) centralization, (2) cooperation, (3) financial control and decision-making, (4) service to the Maine public, (5) energy, (6) program monitoring, (7) quality control, (8) Board of Trustee involvement, (9) accountability, and (10) communication.

## VII. ENERGY

The high cost and potential shortage of energy will make the United States highly vulnerable and dependent upon foreign sources of oil through the mid-1980's. Beyond 1985, this nation should be less dependent on foreign countries due to Alaskan oil and to alternative to oil, such as nuclear, solar, tidal, and sonar energy. There will be an emphasis on energy conservation, which will have little effect on overall oil use. Production of nuclear energy will continue to confront opposition. The major thrusts of the decade will be aimed at the alternative to oil, such as coal and solar, tidal, and sonar technologies. Such an endeavor would require enormous investments in research and development. While the high cost of energy will be a concern during the decade, the problem will provide the opportunity to invent new energy sources. Certainly, the control of sciences and technology over natural forces can solve the energy problems before the

end of this century. In the meantime, there will have to be continuing emphasis on conservation by the end of the 1980's. The technological transformation that will take place as the present energy base is replaced will revolutionize the lifestyle and the institutions of the nation.

The very best we can do right now is to look at our recent history (1973-1980) of price increases and project them into the future. The problem is put in an interesting perspective by taking the 1973 and 1980 total UMF budget and projecting it along with the price increases. This has been done in the following table where the first two rows are the data on which the projections of the next two rows are based.

| Year | No. 2 Fuel Oil Price | Annual Fuel Cost (409,000 gal.) | Total UMF Budget | No. 2 Fuel Oil Cost as a % of Total UMF Budget |
|---|---|---|---|---|
| 1973 | $ 0.13 | $ 53,000 | $3,395,000 | 1.6% |
| 1980 | $ 0.86 | $ 350,000 | $5,092,000 | 6.9% |
| 1985 | $ 3.20 | $1,300,000 | $6,802,000 | 19.0% |
| 1990 | $13.00 | $5,300,000 | $9,086,000 | 58.0% |

Note that this is not a prediction but simply a representation of what would happen if our recent history were repeated. (It's clear from the last column that the institution could not survive to 1990 under this projection.) The interpretation of this table is that some very drastic changes must be made in the 1980-85 period and that the survival of UMF is threatened in the 1985-90 period.

A. Our building inventory was designed for cheap energy and is expensive to modify (the exception to this is some of our wood frame buildings.)

B. We are isolated from population centers.

C. We have a harsh climate.

## VII. ECONOMY

### Nation

The economy will continue to grow, with the real Gross National Project averaging around three percent per year over the next decade. Complicating economic expectations is the energy problem; however, the total number of employed will grow. The economy will continue to be a capital and technological intensive type, requiring knowledge skills. There will be a significant shift to a high services economy, accompanying the "delivery

of service" type government. Consequently, unemployment will stay around six to eight percent, representing those people who cannot participate in a high services economy because of lack of education. The tendency toward state capitalism will continue as shortage and high costs of energy and capital converge to inhibit the private economy. An information economy is emerging based upon the production, distribution, and consumption of knowledge, which will require more and more education at higher and higher levels. There will be a growth in variety if not in volume of employment in the 1980's. The overall national economic growth rate will slow.

## New England

Prognosis for New England in 1980 is better than it has been in decades. New England may fare better in this recession than it has in the past. The recent vigor of the New England economy suggests the region has become more competitive with the rest of the country and better equipped to weather a recession.

## Maine

The growth of the economy of the state of Maine from 1980-1985 will certainly reflect the growth in the economy of the nation. National economic forecasts are currently available only to 1990. These rates of growth will be influenced by the current relatively high rates of inflation which are fourteen to eighteen percent per year. Total personal income is not expected to grow as fast as the rate of inflation through 1981. Therefore real income (reflecting purchasing power of incomes) is projected to actually decline.

Employment in Maine reflects the national trends. Manufacturing employment represents a declining share of total employment. Employment in the services sector, on the other hand, contributes almost twice as much to the incomes of Maine residents in the 1980's as it did in 1970. Services sector employment represented the fastest growing sector from 1970 to 1980. Past trends are usually the safest basis for projecting future trends when no better information is available. It is likely that statewide unemployment will be less than the rise expected nationally.

Both nationally and in the state it can be expected that employment in the services sector will likely continue to be the fastest growing sector. On the other hand, government employment is not likely to continue to grow as rapidly as it has for the past two decades. In the manufacturing sector, two recent trends seem to bode well for the future of industrial growth in the state. Since 1976, manufacturing employment has begun to increase with this increase being most prominent in the durable goods sector of manufacturing. Historically, Maine has been dependent on the manufacture of non-durables for industrial jobs. Maine's natural resource industries face increasingly critical resource management problems.

Projections of manufacturing growth provided by the U.S. Department of Commerce in its Industrial Outlook, 1979 indicate growth rates as follows through 1983 for those industry groups which predominate in Maine.

| INDUSTRY GROUP | ANNUAL RATE OF GROWTH TO 1983 |
|---|---|
| Non-Durable Goods | |
| Food & Beverages | 1.7% |
| Footwear | 8.8% |
| Lumber and Wood Products | 1.0% |
| Paper Products | 3.2% |
| Textiles | 3.8% |
| Durable Goods | |
| Electrical Equipment | 9.0% |
| Fabricated Metal | 2.7% |
| Ordnance and Accessories | 4.1% |
| Rubber and Plastics | 5.1% |
| Transportation Equipment (trucks) | 3.0% |

It may be noted the second group, which are the durable goods industries, exhibit the highest overall growth rates. These are not the industries which predominate in Maine industry. However, among the non-durable goods industries, footwear is projected to grow at a rate of 8.8% per year. Paper products and textiles are projected to grow at a rate of 3-4% per year. These figures represent growth in sales. They may not be accompanied by corresponding rates of growth in employment as firms can be expected to continue to try to improve the productivity of labor by substituting capital for labor.

The Maine State Planning Office projects a growth of 10.5% in personal income in 1981. This is expected to result from a very low rate of growth in manufacturing jobs (0.4%) and a 1.7% increase in non-manufacturing employment. This will follow an expected economic recession in 1980. Overall, the 10.5% rate of increase in personal income is less than present inflation rates. This suggests that real income increases will not keep up with inflation through 1981.

If interest rates do not continue to climb and if the economy does pull out of the current recession this year as projected, it is very possible that Maine could experience real growth rates of about 3% per year to 1985. This would mean the addition of about 12,000 jobs per year from 1982 to 1985. Approximately 5% of this increase would likely come in the agriculture sector and the remaining 95% in the non-agricultural sector. This would help to reduce the substantial unemployment which presently exists. But in addition it would attract new workers into the state. The majority of the new manufacturing and service jobs can be expected to be for technically skilled labor. Maine business and industry is adopting computer controlled business management systems at an increasing rate. If Maine residents do not possess these skills, then persons with those skills will be sought outside the state. By 1985 there is likely to be a labor shortage of between 4500 and 9000 people.

IX. EDUCATION IN GENERAL

1. There will be an increase in external degree programs.

2. The recruitment efforts of colleges will increase dramatically.

3. Institutions will increase the variety of students that they accept.

4. Increased use of computers and telecommunications by institutions.

5. Participation in higher education will not increase significantly. In fact, there will be slowing and uncertain rates of enrollment growth.

6. Colleges will start adjusting to the market.

7. There will be an increasing concentration of students in public institutions.

8. There will be increased regulation by and involvement of government agencies in both public and private institutions.

9. There will be greater dependence on public sources of financial support.

10. There will be a heavy concentration of students on large campuses because of diversity of program offerings.

11. On a comparative basis there will be substantial public confidence in higher education.

12. There will be an older faculty.

13. Students will not apply for post-secondary education as automatically as they have in the past.

14. Institutional survival will depend on its ability to contract with and consequently serve its public.

15. There will be higher proportions of adults and part time students attending colleges.

16. There will be continued changes in inducements to attend college, veterans benefits, student subsidies, and opportunities in the labor market.

17. There will be more non-traditional institutions catering to specialized markets.

18. Level of federal spending in higher education will decrease.

19. The student market will have an increasing impact on the development of an institution.

20. Institutions will have less flexibility and will become less dynamic in their development.

21. Most institutions will fight rather than embrace new technology.

22. Colleges will move to sophisticated planning mechanisms in order to attain flexibility.

23. The institution will move from an offensive stance to a defensive stance.

24. There will be a new generation of students.

X. ENVIRONMENT

Actions aimed at improving the natural environment will be constrained during the decade by concern over economic growth. While the demand for a higher quality of environment will continue to expand, the impact of environmental controls on employment and productivity will be considered carefully. Although advancing slowly, there will be a steady movement toward higher standards of air and water quality. Some regulations on land use will be legislated at the national level, and additional controls will be imposed by almost all the states. Further controls will be legislated nationally by the 1980's on a number of activities which will tend to be detrimental to the natural environment. The delay in this legislation will be due to the influence of private interests on the legislative process. Fortunately, new technologies needed to adapt industry to new resources or new materials invented to replace resources will tend to be less destructive of the natural environment. Moreover, the shift from natural resources to human resources will involve an entirely new system with an emphasis upon the environment. The erratic behavior of the weather as a consequence of climatic changes calls for an intensification of interest in the future of the environment from an entirely new perspective.

Other Thoughts

1. Increased interest (for exploitation or conservation) in resources understanding and management.

2. Increased public awareness through media and education.

   The general public is optimistically oriented and ignores bad "things"; it's them, not us.

3. Changes in environment whether positive or negative have little influence on the course of study because either way one must know it.

4. Natural resources are and will continue to disappear but the demand increases. The demand and need will encourage a decrease in environmental controls.

5. Land use planning and geology aspects of the academic program will be important.

6. Significant shifts in environment management may cause significant shifts in the academic calendar (weather and heating resources).

7. Assisting individuals in dealing with environmental changes will be a primary concern of education. The teaching will be ineffective if society does not practice what's being taught.

8. Should a wood "substance" become a major source of fuel or structural material, then Maine woods would be in more demand. This would increase the number of jobs which could affect the population and hence the need of teachers. It might also leave fewer high school graduates interested in college.

## XI. MAINE VALUES

1. Honesty -- Maine people are generally apt to do what they say they will do. This trait is common in all levels of society. Elected officials carry their responsibilities well and with dignity. Bribery of or kick-backs to public officials have never been a common feature of the Maine scene. In general, service people such as garage mechanics, carpenters, electricians, plumbers and T.V. repairmen are knowledgeable and give value for money received. Incidence of rip-offs are less common in Maine than in many other places. Honest labor for the honest dollar is part of the basic Maine character.

2. Work Orientation — It is believed that every man and woman should be willing and able to work at something. Individuals on welfare frequently draw scorn and face a suspicion that they are just too lazy to work. It is believed that everyone can find work if he wants to do so. The dignity of labor is accepted.

3. Ecological Sensitivity -- Since many Maine people look to the land, the forests or the sea for their livelihood and recreation, a sensitivity to the natural order of things is part of the basic personality. Maine people are generally aware of environmental relationships and how these impinge on their well being. Sensitivity to the environment does not necessarily mean that all Maine people subscribe to a policy of conservation or wise use of natural resources. Income from fisheries, for example, has always been of greater importance than conservation to maintain an on-going supply of shell and fin fish.

4. Reservations about Education -- Increasingly Maine people are becoming critical of public education at all levels, kindergarten through college. In this process professional educators have lost a good deal of respect and do not enjoy the occupational prestige of even two decades ago. Since the costs of education are high and rising, taxes to support public schools are questioned. Better education means more taxes and educational budgets are prime targets. Private (usually church affiliated) elementary and

secondary education has increased as parents have sought to avoid the alleged limitations in the character and quality of public education. Public post secondary education is regarded with suspicion except where the educational goal is clearly vocational in nature. The voc-tech institutes and career education in the University (engineers, accountants, doctors, foresters, nurses, technicians and the like) are accepted as important and valuable.

5. Patriotism -- Strong feelings of support exist for the community, the state and the nation. This does not mean blanket acceptance of all official action or policies. It does mean a willingness to "fly the flag" and a basic distrust of and impatience with those who consistently denigrate the town, the state or the nation. This attitude is best demonstrated by the common comment "If you don't like it here, why don't you move somewhere else!". The somewhere else is often Russia but it could be Massachusetts just as well.

6. Suspicion of Experts -- As a generality Maine people are apt to distrust so-called experts. The fisherman does not respect the fisheries biologist, nor the potato farmer the marketing specialist, nor the mother the child psychologist. Home grown experts are especially suspect. There is a tendency to bring in out-of-state specialists when expert counsel is essential. By extension, there is distrust of bureaucracy (especially bureaucratic procedures) in any form.

7. Religious Tolerance -- Most but not all Maine people subscribe to some sort of religious faith even though the quiet atheist is not distrusted. At one time strong convictions made for tensions among Protestants and Catholics and Jews. Those days have gone and very seldom does one hear disparaging remarks about members of any religious group. It is believed that mankind should have the right to worship whatever Gods seem to offer the best hopes for peace of mind and salvation, however defined. Nevertheless considerable resentment arises over the proselyting for members from such faith groups as Mormons or Jehovah Witnesses. Protestant fundamentalism has increased as people have turned away from the more mature, older religions. Racial tolerance is not as common as the religious variety. There is major resentment towards American Indians and there probably would be towards Orientals and Blacks if there were such populations within Maine.

8. Political Maturity -- Maine people are relatively sophisticated in their political thinking. Party fervor has diminished during the past quarter of a century. The public supports individuals rather than political parties. Party labels are secondary to issues and to the impressions made by candidates. We elect such diverse individuals as Longley, Muskie and Cohen. We often vote against a candidate by voting for his opponent, no matter what he is. Our old label of Conservatism is still not inappropriate since, believing in economic sanity, we distrust the "pie-in-the-sky" promises of the political candidate. We dislike Big Government while at the same time respecting Big Business.

9. Dislike for Non-Conformists -- In small Maine towns the work "Hippie" is used to identify individuals who do not follow an accepted pattern of behavior. All such people are viewed with suspicion and all are

lumped together. Flaunting of local mores creates a feeling of negativism in the general populace. Unwed couples living together, mothers of illegitimate children drawing A.D.C. benefits, homosexuality, use of drugs (other than alcohol), relaxed standards of cleanliness as well as other deviations constitute unacceptable behavior patterns.

10. Respect for Wealth -- Maine people have a high regard for those with money in the bank. Nearly every community has a few individuals who because of their financial resources have a major influence on the economic well being of the people at large. Such individuals give employment, loan money, influence governmental decisions, support worthy causes and work behind the scenes. They are respected rather than resented. Commonly Maine people live within their means. As someone has said, "We always manage to buy what we want but we are darned careful what we want".

11. Other Maine values that should be considered include:

    a. native ingenuity
    b. dry sense of humor
    c. natural sense of being
    d. industrious
    e. warm and friendly
    f. fair
    g. concerned
    h. compassionate
    i. independent
    j. frugal
    k. provincial
    l. accepting
    m. conservative
    n. temperate

(Note: Items 1-10 were written in a letter by Winn Libby to President Einar Olson.)

## IMPACTS

## IMPLICATIONS FOR UMF

How will societal trends affect UMF?

During the summer of 1980 four work groups, each utilizing the trend statements, met and brainstormed relative to the question of how will societal trends affect UMF? These sessions provided a voluminous collection of material. The steering committee has worked this material down to a set of assumptions relating to UMF. In their current form, they have not been melded into a coherent picture, or presented in a manner which would illuminate any underlying structure. Being terse comments on dynamic and sometimes complicated matters, these Impact Statements are largely devoid of contextual "color." The definition of an "impact", used in compiling this list, required that an event or circumstance--to be considered an impact--must describe a state of change that would modify UMF's environment in some manner, if UMF continued to operate as it does doday. Statements solely about status have been excluded.

The committee realizes that some societal trends may have more significant impacts than others on departments and divisions. The following assumptions are intended to address the broad institutional context. The planning committee will develop goals which will relate to the most significant trends. It is recommended by the planning committee that departments and divisions address societal impacts in their own goal development.

The committee recognizes that some impacts are more significant than others. No attempt has been made to order the following impacts. In early February, the committee will seek support from the whole campus, in order to ascertain which of these are the most important to the broad aspects of the institution.

EDUCATIONAL PROGRAM

1. Curriculum will be more technically oriented.

2. Transportation available for educational programs will cost more.

3. The educational program will be impacted by the cost of related energy and changes in the UMF academic calendar.

4. Health Education is a new market taught in school and non-school settings.

5. The College of Education and the lead campus concept will determine the direction of programs.

6. Industry will be interested in UMF delivery of education in their plants.

7. Program quotas and program-specific admissions leave UMF in the position of possibly turning away many well-qualified students in "full" programs, while finding an insufficient number to fill "open" ones.

8. There is need to closely monitor Maine's birth-rate, as even a small change in the rate, coupled with the very large number of women currently of child-bearing age, could rapidly change the demand for elementary school teachers.

9. The educational program will be influenced by job market demands.

10. The mode of delivery of the educational programs will change (i.e., practicum supervision).

11. The energy impact on public schools will affect UMF's educational program and calendar.

12. Different types of students will necessitate different support services.

13. Costs for complying with handicapped regulations will rest with the college.

14. General (State, Federal) support for education will decline, but in some areas, it will be on the incline (energy, health, technology, special education).

15. The government will become more highly involved in certification and accreditation, which will result in less campus autonomy.

16. T.V. and other learning devices will be alternatives for some classroom learning.

17. Science and technology will lead to expanded and adaptable curriculum.

18. More options for use of science and technology will be available to those in the teaching field.

19. The campus will need to be able to deliver and produce educational and instructional materials.

20. There will be a need for more interdisciplinary programs with environment, as well as majors or minors in environmental areas (e.g., water monitoring, pollution control) as demand increases.

21. With a more aware public, which will want to monitor the environment, there will be a demand on UMF to provide the training for the skills necessary for monitoring.

22. Nationally, there will be a slight increase in demand for K-12 teacher preparation. Loss of local subsidies for special education will lessen demand for that speciality.

23. There will be increased sharing of academic programs.

24. The older student will want credit for prior experiential learning.

25. The cost effectiveness of educational programs will be increasingly important.

26. Energy education will become an increasingly important part of curriculum.

27. There will be few or no open block grants for general curriculum development.

28. The college will be asked to determine whether it is delivering what it indicates it will provide students.

29. Technology will be utilized in a student assessment to determine what learning modes and styles will be best suited to students.

30. Environmental study will need to be a part of the curriculum, in some way.

31. Programs should, by their specific and general components, prepare students for wide, lateral job mobility.

32. There will be a need for community-service professional workers.

33. Employers will increasingly demand graduates who have worked in a field-supervised program.

34. Teaching degrees may apply to professional employment in non-school educational settings.

35. The level of involvement in program evaluation will increase.

36. Transfer credit policies will be further developed and clarified.

37. There will be no increase in involvement regarding program approval.

STUDENTS AND STUDENT LIFE

1. The projected decline in the number of Maine high school graduates in the next decade will lead to increased competition in their recruitment (in many program areas) by Maine colleges.

2. The increasing pool of 23-45 year olds represents a potentially significant market (at least, statewide) to be served by the various UM campuses and by other institutions.

3. The bulk of the population in UMF's service area and the bulk of the population increase in that zone (1970-1980) lie in areas more proximal to UMA delivery sites--placing UMF at an increasing, geographical disadvantage in attracting commuter students.

4. As the state provides less money, the higher costs of tuition will be passed on to the student.

5. Any government act to eliminate the NEBHE agreement would result in fewer out-of-state students.

6. The strongly female sex ratio and its current drift toward even more females is the cause of social problems in UMF's non-metropolitan setting and of difficulties in recruiting.

7. Changes in family purchasing power will affect enrollment.

8. The relative low cost of public education will be reflected positively in enrollment.

9. There will be increased costs to the students.

10. With no real increase in financial aid, students will bear higher educational costs.

11. Reduction in social services (day care, food stamps, low-income housing, etc.), will make it impossible for some individuals to attend UMF.

12. The communication and information industry will be a source for employment of college graduates.

13. Products of science and technology will become more cost effective.

14. It will become easier for individuals to enter or re-enter a lifelong learning system at any time.

15. Fewer people will avail themselves of UMF programs, if they fail to see a high employment payoff.

16. Women in increasing numbers are entering or re-entering the work force after child rearing and will require training or re-training.

17. Students will have an increased opportunity to build degrees based on courses from several campuses.

18. Maine high school seniors, in slightly increasing numbers, are electing to go on to post-secondary education.

19. As the economy causes part-time students increased costs and they aren't eligible for financial aid, their numbers will dwindle.

20. Students will spend more time on campus, which will result in increased energy consumption.

21. There will be a move to forms of activities which are not highly energy dependent.

22. Science and technology will allow students to be more investigative (library, media, computers).

23. Individuals will have a greater awareness of and demand instruction in the use of new technology, particularly as it relates to the home and other settings in which learning will increase.

24. Students will have greater awareness of environment because they'll be directly affected by changes in the environment.

25. Students will need to learn about and practice the management of natural resources.

26. A change in the calendar will affect how students utilize the environment.

27. The college will be asked to be more accountable for its campus environment.

28. There will be increased program accessibility--both educationally and physically.

RESOURCES

1. Since the number of part-time students is increasing more rapidly at some other campuses than it is at UMF, this campus will receive a smaller percentage of the income generated by this group.

2. Major policy changes by other New England states--relative to the NEBHE agreement--have the potential to create significant fluctuations in UMF out-of-state enrollment and revenues.

3. The fluctuation in the spring-to-fall attrition rate is large enough to generate significant, unforeseen revenue shortfalls, which can't be covered by short-term recruiting or acceptance maneuver.

4. There will be fewer dollars available for UMF because of increased competition for state resources.

5. There will be a shift in expenditures to energy retrofits.

6. There will be a smaller percent of money and general support from the state.

7. If inflation continues, it will make it difficult to plan expenditures.

8. An increasingly larger percent of the UMF budget will go to energy.

9. Mineral, fossil, fuel, and alternative fuel development will come, but slowly--which means conservation is the most immediate solution.

10. Resource utilization that demands transportation will be increasingly difficult to obtain.

11. There will be no new financial aid dollars which will be sought by a larger percent of students.

12. There will be a need to hire PBS type personnel.

13. There will be an increased need for better utilization of space and other resources.

14. As resources become scarcer, there will be less local autonomy.

15. A closer monitoring of resources may alter their distribution.

16. Resources, in terms of communication and information devices, will be less expensive and increasingly available to the campus.

17. UMF's environment is a resource which we will be able to utilize to a greater extent.

18. Fiscal resources will be specified for particular activites.

19. There will be continuing sharing of all types of resources.

SERVICE

1. An older and more sensitive state population will demand more health education and health services.

2. Industry will be interested in UMF delivery of education in their plants.

3. There will be greater demands for efficient and effective outreach.

4. It will become more costly for students to come to campus for service.

5. There will be increased transportation costs for UMF personnel.

6. Community services requiring science and technology will be in greater demand as a result of increased use in technology.

7. There will be an increasing demand on the college to provide consultation on how to best use technology (e.g., inservices for area teachers).

8. There will be a continued and increased use of campus expertise relative to land, air and water.

9. There will be continued encouragement and demand for service to the Maine public.

10. There will be greater costs to service public use of UMF facilities.

11. There will be greater government demand for interagency collaboration.

12. The campus will play a role as a clearinghouse and center for certain types of communication (i.e., types of information or data banks, interactive T.V. base).

13. Outreach energy education programs will be in demand.

14. Faculty will be called upon increasingly to provide services to industry and public sector agencies.

FACULTY (AND STAFF)

1. It will be difficult to hire and maintain quality faculty and staff in many fields.

2. Different types of expertise will be required of faculty and staff.

3. Scarce resources will cause a shift in faculty assignments.

4. There will be shifts in faculty roles (e.g., need for faculty who can design and produce with this new technology).

5. There will be a demand for innovative redesign of existing curriculum.

6. Fewer resources or limited resources will cause faculty and staff morale to fall.

7. The economy will force further calendar changes.

8. Calendar changes will affect activities of faculty.

9. Energy-related matters will affect work patterns and productivity.

10. Changes in retirement laws will limit institutional flexibility.

11. Interdisciplinary teaching will be called for to relate to new work patterns.

12. The UMF environment will continue to affect the hiring of faculty and staff.

13. There will be increased opportunities to share faculty with other campuses.

RESEARCH

1. A better computer system and supporting resources will be needed.

2. There will be a greater demand upon UMF for research as it relates to the Maine public and the impact of technology upon Maine.

3. Professors will need to experiment with new technology as it relates to delivery modes (controlled or informal experiments).

4. There will be an increasing demand for intercampus delivery systems which will require new technology.

5. There will be a social demand for more applied environmental research as a part of the educational program.

6. The interrelationship between environment and energy will offer more possibilities for research projects at UMF.

7. UMF will need to systematically monitor work environments to determine training and re-training needs.

8. Research will have to justify itself on a cost effective basis.

9. Applied research in energy is an area open to UMF.

10. Increasingly, students will need to become involved in applied research, to better prepare them for work and advanced study.

11. There will be an increased demand for accountability as it relates to research.

ADMINISTRATION

1. The economy will necessitate flexible and responsible management and constant monitoring of economic conditions.

2. Planning will be necessary for the institution to be responsive to turbulent employment markets.

3. Administrative structures will have to become more responsive (to cope with the marketplace demands for new work-oriented degree programs).

4. Energy considerations will dictate decisions.

5. Administrative energy management skills will be needed.

6. There will be a greater need to make choices between competing options.

7. Administrators will become increasingly dependent on the use of science and technology in their daily work.

8. The administration should provide leadership in identifying and responding to environmental changes.

9. There will be a need for increased cooperation between the UM campuses, as a result of shared academic programs and educational services.

10. There will be fewer decisions made at the campus level.

11. More administrative time will be spent in the area of energy management.

12. There will be more rigid guidelines on grant resources and other forms of soft money.

13. Issues decided in the courts will have an increasing effect on UMF.

14. More administrative time will be given to demands for accountability and justification of existence.

15. As the demand for effectiveness increases, science and technology will play a greater role in developing and measuring the desired educational outcomes which UMF expounds.

16. Science and technology will allow for even greater controls of the Central Office.

17. There will be less autonomous fiscal management.

18. Personnel policies will be increasingly controlled by the Central Office.

# U M F in the

# F U T U R E

The work of the Planning Committee during this semester will focus on future goal development in the context of the broad institution for the next three to five years.

The Committee is making the assumption, at this time, that the present Mission and Purpose are broad and flexible enough to allow for any new directions that might be suggested through broad institutional goal development.

Divisions, programs and departments have responsibility for their own goal development. Their goals should reflect the institution's Mission, Purpose and Goals. During the course of this spring, each department, program and division will be requested to develop future goals. It is hoped that this workbook and this section will aid in that development.

Goal development is critical at each level. It provides direction for each aspect of the institution. Furthermore, departmental, programmatic, divisional and institutional goals form the basis for the New England Accreditation self-study which, as you know, is being conducted concurrently. It is hoped that our process will be successful and serve as a model for other New England institutions.

INSTITUTIONAL, DIVISIONAL

DEPARTMENTAL AND PROGRAMMATIC GOALS

A. INSTITUTIONAL GOALS

The Planning Committee will develop goals in relation to the following, broad, institutional areas: educational program, public service, research, students and student life, personnel, and management.

The Impact Statements will be utilized in developing goals.

An explanation of institutional goals can be found in the section "UMF at Present."

B. DIVISIONAL GOALS

Divisional goals are logical extensions of the institutional goals. These goals are more definitive than the institutional goals.

Goals to be developed include:

1. Maintenance and improvement goals, relating essentially to continuing directions.

2. Change goals, founded on special modified, or new, directions.

The Planning Committee recommends that the "suggested guidelines for developing goals and objectives" be used.

The divisions are responsible for the development of their goals.

C. DEPARTMENTAL AND PROGRAMMATIC GOALS

Departmental and programmatic goals are logical extensions of divisional goals. These goals are more definitive than institutional goals.

Goals to be developed include:

1. Maintenance and improvement goals, relating essentially to continuing directions.

2. Change goals, founded on special, modified, or new directions.

The Planning Committee recommends that the "suggested guidelines for developing goals and objectives" be used.

The departments are responsible for the development of their goals.

D. TYPES OF GOALS

When considering goals, one may wish to think about three kinds of goals. Input goals are those that describe the type of human and other resources, including students, that are desired in, or for, the organization. Process goals describe the environment to be created or specific types of programs or services to be offered. Outcome goals state the expectations with regard to outcomes of the process--what is to be achieved as a result of the process?

What are objectives? Objectives amplify each goal statement and provide short-range statements of process or intended outcome.

The following is a process by which goals could be developed within a department, program or division. It can obviously be altered or simplified to meet your needs.

SUGGESTED OUTLINE FOR DEVELOPING GOALS AND OBJECTIVES *

Many of the basic ideas for this outline came from two books by Robert F. Mager, Goal Analysis and Preparing, and Instructional Objectives. It is important to note that the style of writing is from an individual's viewpoint. However, the proposed principles of writing goals and objectives apply equally to any organization.

STEP 1. Write down what you think or feel are goals and objectives. What is it that my organization unit wants to do or happen? Why does it exist? Write down as many statements as you can think of. At this stage, don't be concerned if each statement is a goal or objective.

STEP 2. Write down what would cause you to agree the goal or objective has been achieved. There are three strategies that may help you complete this step.

1. Answer the question, "What will I accept as evidence my goal or objective has been achieved?"

2. Answer the question, "Given a set of 'outcomes', what is the basis on which we would separate them into two groups; those outcomes which had achieved our goals and those which had not?" Yes or no situations.

3. How would someone outside our organization know if we have attained our goals and objectives? What clues would they look for?

STEP 3. Sort the things you have listed in Step 2, looking for abstract statements and duplications. Once a goal or objective has been written and a list has been drafted of the things you think would cause you to agree the goal or objective has been achieved, separate the list into goals and objectives. Write your goals on one sheet of paper and your objectives on another. Eliminate duplications and unwanted statements. Abstractions are made precise and performances are indicated. Continue to make adjustments until every item appears to be a goal statement, an objective statement, or neither.

STEP 4. Step 4 is refining the criteria or level of performance that would cause you to say that your objectives have been achieved and progress is being made toward attaining your goals. Write a complete statement for each goal and objective which describes the precise nature, quality, or amount of performance you will consider acceptable when evaluating the success of your stated goals and objectives. Identify the time frame. Make coherent statements to describe what you intend for each of the performances on your list. For example, you should define precisely what you mean by terms used in your goal and objective statements. For example, terms such as regular, testing, understand, etc. should be precisely defined.

STEP 5. Test each appropriate statement in order to determine if it is a goal, an objective, or neither.

A. Apply the criteria for the determination of goals to each statement that appears to be a goal. A "no" answer disqualifies the statement as a goal.

1. Is the expected outcome in agreement with the institution's purpose?

2. Is the outcome compatible with the missions of the institution?

3. Can objectives be established for the statement?

4. Does the action appear to be feasible?

5. Can the expected results of the action be identified?

6. Is there a time frame?

B. After tentative goals have been identified, apply each statement that appears to be an objective to the objective criteria. A "no" answer disqualifies the statement as an objective. Thus, each objective statement will reflect a 100% "yes" response for all the criteria questions.

STEP 6. Rewrite a list of goals and objectives. Look at your wording, qualify and explain specifically what you mean. The qualification for your goal statement will, by nature, not be as precise as your objective statements. Your goal statement will probably in many cases be qualified by a narrative response. However, the qualification for the objective statements should be precise. For example, identify the specific method of measurement, establish the criteria, specify the time period, etc.

1. Does the statement relate to a goal?
2. Is the end result measurable or observable?
3. Can a specific target group be identified?
4. Can the method of measurement be specified?
5. Can the criteria for evaluation be identified?
6. Can the testing conditions be identified?
7. Can a short time period for achievement be specified?

STEP 7. Test each goal and objective with the following question. If someone achieved or demonstrated the specified indices of performances for each goal or objective, would we be willing to say that he has achieved the goal or objectives? When you can answer "yes" to each statement, the goal and objective analysis is completed.

* This outline has been substantially edited from a xerox from an unknown source.